

Work Order ID 140307

Monday, December 21, 2015 10:49:04 AM

140307

Page 1

Item ID: D206-642-311BL

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/21/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MCS

Date: DEC 21 2015

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

IIN-D206-642

Q

100

Document Control

0.00

DAS

6

9-89

100

DC

DOCUMENT CONTROL

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D206-642-311 CHG008

MCS 16-03-01

MAR 08 2016

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

MAR 01 2016

DAS

6

9-89

DAS

28

9-89

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

B140304

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER : _____							
Misidentified	☐	Past Due								

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Page 1

140307

***D206-642-311BI ***

Required Date: 12/21/2015

Required Qty: 1.00

Comments: IPP Rev:J05.10.11Added D3429-1 per CHG004KJ/CP/JLM/EC
IPP Rev:K 07-12-04 ECN 1080p DD verified by:ec
IPP Rev:L 08-09-29 as per DS19421 DD verified by:EC IPP Rev:M
as per REV.N DD 10.04.19 verified by:EC IPP Rev:N 14.04.25
ECN14-520 DD verf:JLM IPP REV:O 15.10.09 ADDED
BL DD VERF:JLM

[illegible]

DAS
DAS 28
6 9-89
9-89 MAR 01 1990

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐		Power Loss/Surge ☐		Positioned Wrong ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐		Folio/Program ☐		Outside Dimensions ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐		Grain ☐		Over/Under tolerance ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐		Weld ☐		Part Incorrect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐		Wrong Stock Pulled ☐		Part Lost/Missing ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐		Out of Sequence ☐		Part Moved ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐		Off-set ☐		Drawing ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐		Mislabeled ☐		Finish ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐		Fit/Function ☐		Misread ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐		Misaligned/off center ☐		Turning Sequence ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : ☐							
Misidentified ☐		Past Due ☐									

Picklist Print

Monday, December 21, 2015 10:49:12 AM

Page 2

Work Order ID: 140307

140307

Parent Item: D206-642-311BL

***D206-642-311RI ***

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

D2939-1BL

Manufactured No

110 Each

4.0000

1

***D2939-1RI ***

Saddle LH In, 206

**

DAS

6

0-89

DAS

28

9-89

Location

Loc Qty

Loc Code

ST391

4

138653

4

AN3-41A

Purchased

No

110

Each

482.0000

8

***AN3-41A ***

Bolt

**

DAS

6

9-89

DAS

28

9-89

Location

Loc Qty

Loc Code

FG

20

122416

20

OVER002

462

123355

462

D2652

Manufactured

No

110

Each

429.0000

16

***D2652 ***

Bushing

**

MAR 01 2016

DAS

6

9-89

Location

Loc Qty

Loc Code

FG

45

31985

45

ST009

384

136228

384

DAS

27

9-89

DAS

28

9-89

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐ _____							

Picklist Print

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Page 3

Work Order ID: 140307

140307

Parent Item: D206-642-311BL

*D206-642-311RI *

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

110

Each

1,747.000

8

8

MS21042L3

Nut

**

134039

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

185

m133790

185

GA

232

m133790

232

ST304

1330

m133790

1330

NAS1149D0363J

Purchased

No

110

Each

900.0000

8

8

NAS1149D0363J

Washer

**

134055

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

GA

129

m130799

129

ST263

771

m133709

271

m133790

500

AN5-10A

Purchased

No

110

Each

270.0000

4

4

AN5-10A

Bolt

**

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

GA

51

122800

51

over003

150

m133323

50

m133483

100

ST338

69

m133077

19

m133769

50

MAR 01 2016

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Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due								
		OTHER :							

Picklist Print

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Page 4

Work Order ID: 140307

140307

Parent Item: D206-642-311BL

*D206-642-311RI *

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

AN5-11A

Purchased

No

110

Each

70.0000

**

4

4

DAS
6
9-89

AN5-11A

BOLT

DAS
27
9-89

Location

Loc Qty

Loc Code

ST299A

1

M126105

1

ST338

69

M132551

2

M133077

17

M133234

50

110

Each

1,211.000

**

8

8

DAS
28
9-89

NAS1149D0563J

Purchased

No

NAS1149D0563.J

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

53

m125807

53

ST260a

520

m130799

55

m132035

55

m132256

10

m133769

400

ST263

463

m133134

129

m133363

334

ST269

156

m128257

156

ST271

19

m131026

19

DAS
6
9-89

DAS
28
9-89

MAR 11 2016

Monday, December 21, 2015 10:49:12 AM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Monday, December 21, 2015 10:49:12 AM

Page 5

Work Order ID: 140307

140307

Parent Item: D206-642-311BL

*D206-642-311RI *

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

AN4-6A Purchased

No

110

Each

1,234.000

**

12

12

134039

68-6

9

SVQ

AN4-6A

BOLT

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CA

143

M128403

43

M130851

100

over03

1000

M133790

1000

12

ST345

91

M128403

8

M133316

18

M133363

65

NAS1149D0463J

Purchased

No

110

Each

2,758.000

**

25

25

134039

68-6

9

SVQ

NAS1149D0463.J

WASHER

DAS

28

9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

432

M129390

41

M132035

391

ST263

902

M133284

32

M133316

870

ST269

1424

M129682

39

M130799

361

M132317

101

M132677

888

M133077

35

MAR 01 2016

Monday, December 21, 2015 10:49:12 AM

Shop Packet Print

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Work Order ID: 140307

140307

Parent Item: D206-642-311BL

***D206-642-311RI ***

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

110

Each

3,271.000

12

12

MS21042L4

Locknut

**

Location

Loc Qty

Loc Code

FP001

137

m133363

137

GA

41

m127813

41

ST260a

92

m130799

56

m132262

36

ST303

2868

m133769

2868

ST305

133

m128300

8

m130388

4

m130922

97

m132123

24

D3407-043

Manufactured

No

110

Each

0.0000

1

1

D3407-043

Tow Ring

BLUE

**

140316

MAR 01 2016

DAS
6
9-89
DAS
28
9-89

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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Work Order ID: 140307

140307

Parent Item: D206-642-311BL

*D206-642-311RI *

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

D3456-1

Manufactured No

110

Each

94.0000

D3456-1

Washer

**

1
140756

Location

Loc Qty

Loc Code

FG

7

25701

7

ST038

12

135949

12

ST038A

75

136922

50

138961

25

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

D3457-1

Manufactured No

110

Each

70.0000

D3457-1

Washer

**

2

Location

Loc Qty

Loc Code

FG

10

32409

10

ST037

10

107195

2

127393

8

ST038

6

136442

6

ST038A

44

138904

44

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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Work Order ID: 140307

140307

Parent Item: D206-642-311BL

*D206-642-311RI *

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

MS21043-4 Purchased No

110 Each

1,363.000

1

MS21043-4

Nut

**

DAS
28
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK007

800

m133769

800

FG

40

104603

40

GA

31

m128798

31

ST302

492

m132803

300

m133316

192

AN4C5A Purchased No

110 Each

32.0000

1

AN4C5A

Bolt

**

DAS
28
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST345

32

m132857

12

m133135

20

NAS1149C0463R Purchased No

110 Each

247.0000

1

NAS1149C0463R

Washer

**

DAS
28
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

72

m127306

72

ST271

175

m128401

75

m133077

100

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By * Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Work Order ID: 140307

140307

Parent Item: D206-642-311BL

*D206-642-311RI *

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

D3413-1 Manufactured No

110 Each

23.0000

D3413-1

O-Ring

**

B 141552

DAS 28 9-89

BAS 27 9-89

Location

Loc Qty

Loc Code

st530

23

106048

1

136462

22

BLUE

D2712 Manufactured No

110 Each

355.0000

D2712

Set Screw

**

10

DAS 6 9-89

BAS 27 9-89

Location

Loc Qty

Loc Code

FG

55

29962

55

ST009

300

102226

12

107365

12

135950

242

89929

10

93686

24

D2934 Manufactured No

110 Each

46.0000

D2934

Saddle Spacer

**

2

MAR 11 2016

DAS 6 9-89

BAS 27 9-89

Location

Loc Qty

Loc Code

FG

6

31929

6

ST014

40

106671

2

136116

38

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	☐	Past Due ☐							

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Work Order ID: 140307

140307

Parent Item: D206-642-311BL

***D206-642-311RI ***

Parent Item Name: Skidtube LH (Ael Blue)

Start Date: 12/21/2015

Required Date: 12/21/2015

Start Qty: 1.00

Required Qty: 1.00

D2935

Manufactured No

110

Each

34.0000

2

2

D2935

Saddle Spacer

**

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

6

31793

6

ST014

28

107682

2

136244

26

2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

4.5 206 L/L-1/L-3/L-4/407 LOW & HIGH GEAR SKIDTUBES

ITEM	QTY -311	QTY -312	QTY -313	QTY -314	QTY -341	QTY -357	QTY -349	QTY -351	QTY -013	PART NUMBER	DESCRIPTION
	X									D206-642-311	SKIDTUBE INSTALLATION, LH
		X								D206-642-312	SKIDTUBE INSTALLATION, RH
			X							D206-642-313	SKIDTUBE INSTALLATION, LH
				X						D206-642-314	SKIDTUBE INSTALLATION, RH
(1)	1				X					D206-642-341	SKIDTUBE
						X				D206-642-357	WEARSHOE KIT (REPLACES -347)
							X			D206-642-349	RUN-ON LANDING WEARPLATE KIT
			1	1				X		D206-642-351	SKIDTUBE
1	1	1	1	1					X	D206-642-013	GROUND HANDLING KIT
1					1					D2650-5	SKIDTUBE ASSEMBLY
1								1		D4361-041	SKIDTUBE ASSEMBLY
2A					14			4		D2651-1	* PLUG ⁽¹⁾
2B					14			4		D2651-3	* O-RING ⁽¹⁾
3					1			1		D2646	* AFT CAP ⁽¹⁾
4					2			2		MS27039-1-08	* SCREW ⁽¹⁾
5					2			2		NAS1149D0332J	* WASHER ⁽¹⁾ (OR AN960JD10L)
6	1		1							D2932-1	SADDLE, FWD OUT, LH
8		1		1						D2932-2	SADDLE, FWD OUT, RH
7	1		1							D2933-1	SADDLE, FWD IN, LH
7	1			1						D2933-2	SADDLE, FWD IN, RH
8	1		1							D2938-1	SADDLE, AFT OUT, LH
8	1			1						D2938-2	SADDLE, AFT OUT, RH
9	1		1							D2939-1	SADDLE, AFT IN, LH
9	1			1						D2939-2	SADDLE, AFT IN, RH
10	8	8	8	8						AN3-41A	BOLT
11	16	16	16	16						D2652	BUSHING
12A	8	8	8	8						MS21042-3	NUT (OR MS21042L3)
12B	8	8	8	8						NAS1149D0363J	WASHER (OR AN960JD10)
13	4	4	4	4						AN5-10A (OR AN5-11A)	* BOLT ⁽²⁾
14	4	4	4	4						AN5-11A (OR AN5-12A)	* BOLT ⁽²⁾
15	8	8	8	8						NAS1149D0563J	WASHER (OR AN960JD516)
16	12	12	12	12						AN4-6A	BOLT
17	24	24	24	24						NAS1149D0463J	WASHER (OR AN960JD416)
18	12	12	12	12						MS21042-4	NUT (OR MS21042L4)
20A					6	6				D3537-1	WEARPAD (REPLACES D2648-3)
21A					1	1				D3537-3	WEARPAD (REPLACES D3429-1)
22A					1	1				D4956-11	WEARSHOE (REPLACES D3535-11 + D3536-11)
23A					1	1				D4956-23	WEARSHOE (REPLACES D3535-23 + D3536-23)
24A					1	1				D4956-35	WEARSHOE (REPLACES D3535-35 + D3536-35)
26A					54	54				MS27039C1-08	SCREW
26B					54	54				NAS1149C0332R	WASHER (OR AN960C10L)
26C					54					ALS7-1032-130	* INSERT ⁽¹⁾ (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
30	1	1	1	1						D3407-043	TOW RING ASSEMBLY (REPLACES D2968-043)
32A	1	1	1	1						D3456-1	WASHER
32B	2	2	2	2						D3457-1	WASHER
33	1	1	1	1						MS21043-4	NUT
34	1	1	1	1						AN4C5A	BOLT
35	1	1	1	1						NAS1149C0463R	WASHER (OR AN960C416)
36	1	1	1	1						D3413-1	RING (REPLACES D2655)
37	10	10	10	10						D2742	SET SCREW
38	2	2	2	2						D2934	SADDLE SPACER
39	2	2	2	2						D2935	SADDLE SPACER
40									2	D3414-041	GHW LUG (REPLACES D2659)
41									4	AN3C37A	BOLT
42									8	D2652	BUSHING
43									4	MS21043-3	NUT
44									4	NAS1149C0363R	WASHER (OR AN960C10)

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Date: 13.08.12